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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,943	07/27/2001	Hoi Yeung Chan	YOR920000717US1 (14033)	8815
7590 07/08/2004 STEVEN FISCHMAN, ESQ. SCULLY, SCOTT, MURPHY AND PRESSER 400 Garden City Plaza Garden City, NY 11530			EXAMINER HIRL, JOSEPH P	
			ART UNIT	PAPER NUMBER
			2121	

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/916,943

Applicant(s)

CHAN ET AL.

Examiner

Joseph P. Hirl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered April 22, 2004 for the patent application 09/916,943 filed on July 27, 2001.
2. The First Office Action of December 23, 2003 is fully incorporated into this Final Office Action by reference.

Status of Claims

3. Claims 1, 9 and 15 are amended. Claims 1-18 are pending.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Clendinning et al (US Pub 2002/0107861, referred to as **Clendinning**).

Claims 1, 15

Clendinning anticipates a) communicating said rule-sets to be merged over a distributed network to an assimilator service device for receiving each said rule-set (**Clendinning**, ps 0046, 0072-0075; Examiner's Note (EN: p 2 above applies; rule-sets are synonymous with databases); b) providing a merge policy to said Assimilator device, said merge policy comprising a set of specifications of partially-ordered priorities and/or mutual exclusion constraints (**Clendinning**, p 0046); c) translating said rule-sets into a common core representation capable of being implemented in any logic program rule engine provided in a rule-based application at any location (**Clendinning**, p 0046); d) assimilating said rule-sets to produce a new merged rule-set comprising logic required for resolving potential conflicts among rules in accordance with said merge policy, where said new merged rule-set is in a common core representation capable of being implemented in any logic program rule engine provided in a rule based application at any location (**Clendinning**, ps 0046, 0072-0075); e) translating said new merged rule-set into one of said originating application's said rule format (**Clendinning**, p 0046); and f) communicating said translated new merged rule-set over said distributed network to the one of said originating applications (**Clendinning**, ps

0046, 0072-0075; EN: to this claim and those that follow, p 2 above applies; the Examiner has the obligation to interpret the claims broadly and simply stated, a rule-set can be considered a database).

Claim 2

Clendinning anticipates said assimilator device is employed to merge rule-sets in two or more rule formats from two or more originating applications and communicate the translated new merged rule-set to one of said originating applications (**Clendinning**, ps 0046, 0072-0075).

Claims 3, 16

Clendinning anticipates assimilator device is employed for updating rules included in a first rule-set imported from a rules-editor device (**Clendinning**, p 0046, EN: all databases can be considered as having editing capability in as much as they are capable of changing their contents).

Claim 4

Clendinning anticipates assimilating step includes applying one or more logic mechanisms in said merge policy for identifying conflicts and resolving conflicts among said rules (**Clendinning**, p 0046).

Claim 5

Clendinning anticipates a logic mechanism includes a priority specification for expressing conflict resolution (**Clendinning**, p 0046).

Claim 6

Clendinning anticipates a logic mechanism includes mutual exclusion constraints (**Clendinning**, p 0046; EN: mutual exclusion means independence and an arbitrary integer is an example of an independent constraint).

Claim 7

Clendinning anticipates core representation includes a courteous logic program (**Clendinning**, p 0046; EN: courteous logic program implies prioritization of conflict situations such as described in the referenced paragraph).

Claims 8, 14

Clendinning anticipates distributed network is the Internet (**Clendinning**, 0072-0075).

Claim 9

Clendinning anticipates a communications network enabling the transmission and receipt of rule-sets to be merged between said different locations (**Clendinning**, ps 0046, 0072-0075); a translator mechanism for translating each said rule-set from its rule format into a common core representation capable of being implemented in any logic program rule engine provided in a rule-based application at any location and for translating from said common core representation into each said originating application's rule format (**Clendinning**, ps 0046, 0072-0075); a conflict transformer mechanism for receiving each said rule-set and assimilating said rule-sets to produce a new merged rule-set in accordance with a merge policy, said new merged rule-set comprising specification of a set of partiality-ordered priorities and/or mutual- exclusion

constraints that comprise logic required for resolving potential conflicts among rules (**Clendinning**, ps 0046; p 2 above applies; rule-sets are synonymous with databases; core product identifier is an arbitrary integer) and, device for translating said new merged rule-set into a common core representation capable of being implemented in any logic program rule engine provided in a rule based application at any location (**Clendinning**, ps 0046, 0072-0075).

Claim 10

Clendinning anticipates said new merged rule-set is produced in said common core representation, said transforming device converting said new merged rule-set into one of said originating formats (**Clendinning**, p 0046).

Claim 11

Clendinning anticipates said merge policy includes one or more logic mechanisms for identifying and resolving conflicts among said rules (**Clendinning**, p 0046).

Claim 12

Clendinning anticipates a logic mechanism includes a priority specification for expressing conflict resolution (**Clendinning**, p 0046).

Claim 13

Clendinning anticipates a logic mechanism includes mutual exclusion constraints for expressing conflict resolution (**Clendinning**, p 0046; EN: see comments of claim 6).

Claim 17

Clendinning anticipates after said assimilating step, a step of transforming said new merged rule-set from said common core representation back to an originating format (**Clendinning**, p 0046; p 0048; EN: a canonical representation is considered a form of an originating format).

Claim 18

Clendinning anticipates assimilating step includes applying one or more logic mechanisms in said merge policy for identifying conflicts and resolving conflicts among said rules (**Clendinning**, p 0046).

Response to Arguments

6. The objection to the specification is withdrawn.
7. The objection to the abstract is withdrawn.
8. Applicant's arguments filed on April 22, 2004 related to Claims 1-18 have been fully considered but are not persuasive.

In reference to Applicant's argument:

With respect to the rejection of Claims 1-18 as anticipated by Clendinning, applicants respectfully disagree primarily for the reason that Clendinning is not oriented to knowledge-based systems originating from the context of Artificial Intelligence. With respect to the rejection of independent Claims 1, 9 and 15, applicants' respectfully submit that "rule-sets" as claimed in the claims are not synonymous with "databases" as the Examiner broadly interprets and asserts in the rejection. More specifically, the present invention relates to rule-sets applied in rule based systems, e.g., expert systems that encode knowledge of a human expert, and comprise logic. Logic, in such rule-based systems are represented by rule-sets

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and comprise rules, e.g., provided in the form of if-then-else patterns, that are implemented specifically to separate the logic from data which are facts and assertions. Rule based systems or, expert systems, are implemented in any human knowledge context, for example, business policy, and leads itself to implementation of rule-based applications. For example, as set forth in the specification at page 8, lines 5-17, and at page 9, lines 11-14, the rule-sets include policy (e.g., business policy). Thus, to clarify the present invention, ' independent Claims 1, 9 and 15 have been amended to set forth that rule-sets implement a policy which is fully supported by the specification. "Policy", when implemented, according to the invention, may be defined as: a definite goal, course or method of action to guide and determine present and future decisions. "Policies" are implemented or executed within a particular context (such as policies defined within a business unit). Network Working Group Request for Comments (RFC 3198), "Terminology for Policy-Based Management," The Internet Society, November 2001 (<http://www.ietf.org/rfc/rfc3198.txt>). Thus, in the present invention, for example, as claimed in amended Claims 1, 9 and 15, it is business policies, represented as rule-sets, that are being merged.

Respectfully, Clendinning is not applicable as it is only directed to the data (fact assertions) portion of a rule based system, and, specifically, only in the context of vendor product information. This data is contained in a database, and Clendinning is directed to collecting and organizing product information from myriad of vendor resources (e.g., websites) and in various forms, for storage in a database in an efficient way to facilitate the structured presentation of the information.

Examiner's response:

Para 11. below applies. The applicant must accept that it is the claims and only the claims that set forth the metes and bounds of the invention. Further, it is the obligation of the Examiner to interpret each claim in the broadest reasonable manner. "Knowledge-based systems" and "Artificial Intelligence" terms are not used in the claims. Within an expert system, there generally are rule sets and an inference engine. The accumulated body of knowledge of human specialists is contained in the database or rule-sets. The reasoning ability is contained in the inference engine... not in the rule-sets. The claims do not restrict the Examiner from interpreting the rule-sets as a database. Concerning "policy", the preamble is generally not given weight to the claim limitations of the claim body. Notwithstanding such considerations, policies are represented by rule-sets which are databases. Clendinning is implementing policy at para 0046. Collection of data by Clendinning is not a limitation in the use of the prior art of Clendinning.

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In reference to Applicant's argument:

Respectfully, Clendinning does not implement rule based systems in the manner as set forth in the claims setting forth the present invention. That is, Clendinning does not provide feature of assimilating rule-sets (business policies) to produce a new merged rule-set comprising logic required for resolving potential conflicts among rules in accordance with a merge policy comprising a set of specifications of partially-ordered priorities and/or mutual-exclusion constraints. Clendinning, rather, teaches assimilation of data for presentation in a common format via an interface, and does not resolve potential conflicts among rules as set forth in the claims of the present invention. That is, Clendinning provides a "normalization" engine (See 1 [0042] of Clendinning) that performs a translation function on data to ensure that data is canonically represented as a product having attribute and value pairs. Further, while Clendinning teaches a product mapping, this is not suggestive as a rule-set merge policy as in the present invention. The merging performed in Clendinning is the merging of data (data from a vendor's web-site) into a database, and not a rule-set merge, as set forth in the claims of the invention. For example, the merge described in Clendinning (see, for example, [0047] of Clendinning) is actually a comparison of an item (product) to be displayed against a product map (listing vendor products and corresponding identifiers). If the new product is not found in the list, it is added (merged) with new attribute-value pairs, and thereafter, normalized within the database after consultation with various "alias" lists for attributes, values and domains. Thus, while 1 [0046] of Clendinning cited by the Examiner in his rejection of independent Claims 1, 9 and 15 includes terms such as "assimilate" and "merge", as in the claims of the present invention, it is of a completely different technology context, and, respectfully, does not render the instant invention anticipated nor obvious.

In sum, Clendenin does not assimilate rule-sets to produce a new merged rule-set comprising logic required for resolving potential conflicts among rules in accordance with a merge policy comprising a set of specifications of partially-ordered priorities and/or mutual-exclusion constraints. That is, Clendinning does not merge business logic rules (e.g., policy implemented as a series of if-then-else patterns) as the present invention is directed and set forth in the independent claims.

Examiner's response:

Para 11. below applies. Clendinning, as described above and referenced in the First Office Action to each claim and step, matches what is claimed within the broad interpretation of the Examiner. In such interpretation, rule-sets are databases.

Clendinning assimilates and merges data of similar and conflicting features.

Clendinning does teach the feature of assimilating rule-sets (business policies) to produce a new merged rule-set comprising logic required for resolving potential conflicts among rules in accordance with a merge policy comprising a set of specifications of partially-ordered priorities and/or mutual-exclusion constraints. Such is Clendinning at

para 0046 where Clendinning assimilates and merges information into new databases. Clendinning at para 0046 provides the logic of the operation. Partially-ordered conflicts are addressed at Clendinning at para 0046 by "In case of a conflict, ..." Mutual-exclusion constraints are addressed at Clendinning at para 0046 related to step 1003. The Applicant is once again reminded that the claims and only the claims form the metes and bounds of the invention and the Examiner has the obligation to interpret the claims in the broadest reasonable manner. Clendinning produces assimilated and merged databases. Clendinning teaches assimilation of rule-sets to produce a new merged rule-set comprising logic required for resolving potential conflicts among rules in accordance with a merge policy comprising a set of specifications of partially-ordered priorities and/or mutual-exclusion constraints at Clendinning at para 0046.

Examination Considerations

9. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the

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art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

10. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

11. Examiner's Opinion

Paras 6. and 7. apply. Applicant is invited to fully understand para 9 above. It is from the references cited in this para that the Examiner has authority to reject the Applicant's claims using the prior art of Clendinning et al.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Claims 1-18 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anthony Knight can be reached at (703) 308-3179.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,
Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:


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(703) 746-7290 (for informal or draft communications with notation of
"Proposed" or "Draft" for the desk of the Examiner).



Joseph P. Hirl

July 1, 2004



Anthony Knight
Supervisory Patent Examiner
Group 3600